

and comparatively larger in size, almost double the size of that of male. In male it is visible during the breeding season only.

The field observations have confirmed that with the aid of these contrasting differences it is possible to segregate the sexes irrespective of the size of the fish, throughout the year with good accuracy and more so during the breeding season.

ACKNOWLEDGEMENTS

We are greatly indebted to Dr. V. G. Jhingran, Director and Dr. Y. R. Tripathi, Deputy Director, of the Institute for kindly going through the manuscript and for valuable suggestions.

SMALL RESERVOIRS UNIT,
CENTRAL INLAND FISHERIES
RESEARCH INSTITUTE,
REWA, (M.P.),
August 4, 1971.

J. BHIMASENA RAO
S. J. KARAMCHANDANI

REFERENCES

- DAY, F. (1889): Fauna of British India. Fishes, Vol. I:131.
PARAMESWARAN, S., SELVARAJ, C. & RADHAKRISHNAN, S. (1967): A review of the Indian Freshwater fishes of the genus *Ompok* Lecepede. *J. Zool. Soc. India* 19(1&2).

15. ON *CHRIONEMA CHRYSERES* GILBERT, A RARE BATHYPELAGIC FISH IN THE INDIAN OCEAN

(With a text-figure)

Gilbert (1905) established the genus *Chrionema* for two new bathypelagic fishes from the Pacific Ocean: *C. chryseres* and *C. squamiceps*. Fowler (1928) synonymised these two species as he considered the latter as the juvenile of the former species. In a revision of the family Percophididae, Ginsburg (1955), however, recognises *squamiceps* as a valid species based on a study of the types but considered the species congeneric with *Chriomystax squamentum* Ginsburg, 1955 and restricted the genus *Chrionema* to its type species.

During a recent faunistic survey of the south-west coast of India, a specimen of *Chrionema chryseres* Gilbert, was captured along with numerous other deep-water fishes in an otter trawl from a depth of 300 metres at a station about 85 km off Quilon by the ship "Blue Fin" of the Central Institute of Fisheries Operatives, Cochin. This communi-

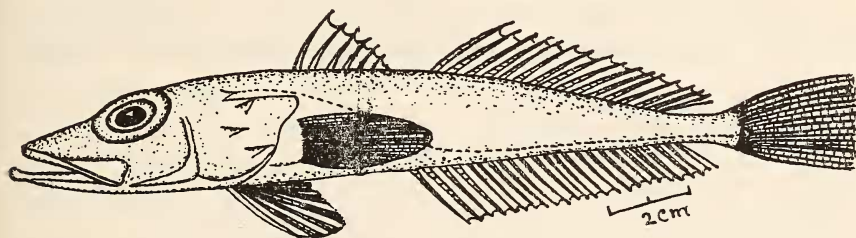
cation is the first record of this rare bathypelagic fish since its original discovery from the Pacific Ocean off the Hawaiian Islands and adds an interesting species to the fish fauna of India. A description of the single specimen collected is given below.

Chrionema chryseres Gilbert

Chrionema chryseres Gilbert, 1905, *Bull. U.S. Fish. Comm.*, **23**(2): 645, pl. 85 (type loc: Off Oahu, Hawaiian Islands); Fowler, 1928, *Mem. Bernice P. Bishop Mus.*, **10**: 423 (after Gilbert); Ginsbarg, 1955, *Proc. U.S. nat. Mus.*, **104** (3347): 629 (name only).

Material:

One ex., 173 mm in standard length, off Quilon (Kerala) at station Lat. 09° N. Long. 76° E., 300 metres depth, 3 March 1971, coll. P. K. Talwar; ZSI Regd. No. F 6310/2.



Chrionema chryseres Gilbert, 200 mm.

Description:

B 7; D VI. 16; A 24; P 24; V 6

Scales in lateral series 76, transverse 12/6.

Gillrakers on first arch 4 + 14; upper arm with one and lower arm with 3 low tubercles.

Body elongate, slender, depth 14.5 in per cent of standard length. Head and anterior part of body depressed, head length 39.3 in per cent of standard length. Mouth rather large, horizontal, superior, lower jaw extending beyond upper; maxillary extending to vertical from half eye diameter, distal end without fleshy tentacle, length 38.7 in per cent of head length. Eye diameter 24.8, inter-orbital width 4.4; both in per cent of head length. Snout notably depressed, somewhat duck-like, slightly shorter than eye diameter, twice in postorbital distance.

Teeth—villiform bands in jaws, vomer and palatines; tongue edentate.

Scales—ctenoid on body and head; snout, maxilla and space between mandibular rami naked. Pectoral and caudal fin bases scaled, dorsal and anal fin bases scaleless.

Fins—Dorsal fin spines flexible; second dorsal fin similar to anal fin, rays notably well placed. Pelvic fin origin in advance of pectoral fin, under vertical from preopercular margin. Caudal fin truncate with 13 principal rays.

Colour in alcohol—Dark brown above, lower surface creamy. Four large dusky blotches along the sides slightly low and smaller dark blotches in interspaces. Inner rays of pelvic fin dusky, outer two rays and spine creamy white.

Distribution: Hawaiian Islands and the south-west coast of India; bathypelagic.

ACKNOWLEDGEMENTS

I am grateful to Dr. A. P. Kapur, Director, for encouragement and Dr. A. G. K. Menon, Superintending Zoologist, Zoological Survey of India, Calcutta for kindly reading through the manuscript critically.

ZOOLOGICAL SURVEY OF INDIA,
INDIAN MUSEUM NEW BLDG.,
CALCUTTA - 13,
October 16, 1972.

P. K. TALWAR

REFERENCES

FOWLER, H. W. (1928): The fishes of Oceania. *Mem. Bernice P. Bishop Mus.*, 10:1-540.

GILBERT, C. H. (1905): The deep-sea fishes of the Hawaiian Islands, in Jordan and Evermann. The aquatic resources of the Hawaiian Islands. *Bull. U.S. Fish. Comm.* 23(2):

575-713.

GINSBURG, I. (1955): Fishes of the family Percophididae from the coasts of eastern United States and the West Indies, with descriptions of four new species. *Proc. U.S. nat. Mus.*, 104(3347): 623-639.

16. *DIODON HOLACANTHUS* LINNAEUS (PISCES: DIODONTIDAE) FROM INDIA

Fishes belonging to the genus *Diodon* (Family: Diodontidae), popularly known as porcupine fishes inhabit coral lagoons of warm oceans. Linnaeus (1758) described *Diodon holacanthus* from India and the species has subsequently been recorded from several parts of